IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: André M. E. Nel	Art Unit	: 3623
Serial No.	: 09/930,640	Examiner	: Sterrett, Jonathan G.
Filed	: August 15, 2001	Confirmation No.:	1838
Title	: ALLOCATING FREIGHT HAULAGE JOBS		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

I. Real Party in Interest

The real party in interest is Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas.

II. Related Appeals and Interferences

Appellant is not aware of any related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-24 are pending.

Appellant appeals all rejections of the claims 1-24.

CERTIFICATE OF TRANSMISSION

I hereby certify that this document is being transmitted to the Patent and Trademark Office via electronic filing.

January 10, 2007
Date of Transmission

(Signature of person mailing papers)

Edouard Garcia
(Typed or printed name of person mailing papers)

IV. Status of Amendments

The Amendment that was filed on April 11, 2006, has been entered and acted upon by the Examiner.

No amendments were filed after the final Office action dated May 17, 2006.

V. Summary of Claimed Subject Matter

A. Introduction

The specification explains that the claimed invention enables a mobile carrier entity to be notified of a potential freight haulage job while on route to a destination for a current freight haulage job and, thereby, fill excess capacity that it may have at any particular time (see page 7, lines 2-5, and page 3, lines 20-23, of the specification). In addition, the claimed invention enables excess capacity information and freight haulage job information to be collected at a centralized location on the fly and enables freight haulage jobs to be matched automatically to excess capacity in real time (see, e.g., page 3, lines 23-26, of the specification).

B. Independent claim 1

The aspect of the invention defined in independent claim 1 is a method of allocating freight haulage jobs in accordance with which respective capacity attributes for each mobile carrier entity in a set of freight-hauling mobile carrier entities are received from one or more users. The received capacity attributes include position information, route information and excess capacity information specifying available freight-hauling capacity for each mobile carrier entity. A projection of available carrier capacity is computed based upon the received mobile carrier capacity attributes. One or more freight haulage job candidates are identified from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

FIG. 1 shows an embodiment of a global freight haulage job manager 22 that executes a method in accordance with claim 1. The global freight haulage job manager 22 collects excess

capacity information and freight haulage job information on the fly, and automatically matches freight haulage jobs to excess capacity in real time (see page 6, lines 21-23, of the specification). The global freight haulage job manager 22 receives from one or more users carrier capacity attributes, including position information, route information and excess capacity information, for each of the mobile carrier entities 10-20, and receives from shippers 26, 28 shipping attributes for each of a set of freight haulage jobs (see page 6, lines 24-27 of the specification). Based on the received mobile carrier capacity attributes, the global freight haulage job manager 22 computes a projection of available carrier capacity (see page 6, lines 27-29 of the specification). The global freight haulage job manager 22 then identifies one or more freight haulage job candidates from the set of mobile carrier entities 10-20 based upon the computed projection of available carrier capacity and the received shipping attributes for the set of freight haulage jobs (see page 6, line 29 - page 7, line 2, of the specification).

C. Independent claim 10

The aspect of the invention defined in independent claim 10 is a computer program for allocating freight haulage jobs. The computer program resides on a computer-readable medium and includes computer-readable instructions for causing a computer to receive respective capacity attributes from one or more users. The received capacity attributes include position information, route information and excess capacity information specifying available freight-hauling capacity for each mobile carrier entity in a set of freight-hauling mobile carrier entities. The computer program also causes the computer to compute a projection of available carrier capacity based upon the received mobile carrier capacity attributes. The computer program additionally causes the computer to identify one or more freight haulage job candidates from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

FIG. 1 shows an embodiment of a global freight haulage job manager 22 that may be implemented, in part, in a computer program product tangibly embodied in a machine-readable storage device for execution by a computer processor (see page 14, line 25, through page 15, line 16). The global freight haulage job manager 22 executes the functionality of the computer

program recited in claim 10. In particular, the global freight haulage job manager 22 collects excess capacity information and freight haulage job information on the fly, and automatically matches freight haulage jobs to excess capacity in real time (see page 6, lines 21-23, of the specification). The global freight haulage job manager 22 receives from one or more users carrier capacity attributes, including position information, route information and excess capacity information, for each of the mobile carrier entities 10-20, and receives from shippers 26, 28 shipping attributes for each of a set of freight haulage jobs (see page 6, lines 24-27 of the specification). Based on the received mobile carrier capacity attributes, the global freight haulage job manager 22 computes a projection of available carrier capacity (see page 6, lines 27-29 of the specification). The global freight haulage job manager 22 then identifies one or more freight haulage job candidates from the set of mobile carrier entities 10-20 based upon the computed projection of available carrier capacity and the received shipping attributes for the set of freight haulage jobs (see page 6, line 29 - page 7, line 2, of the specification).

D. Dependent claims 8 and 16

Claims 8 and 16 depend from independent claims 1 and 10, respectively. Each of claims 8 and 16 recites "further comprising computing an amount of capacity available on a given mobile carrier entity based upon excess capacity information received from the given mobile carrier entity."

In some embodiments described in the specification, a portable device scans information from a container that is carried by a mobile carrier and from each item of freight loaded into the container (see page 13, lines 14-26, of the specification). The scanned information includes the dimensions (or volume) and weight capacity of the container and the dimensions (or volume) and weight of the freight items. The portable device transmits the volume and weight information to the global freight haulage job manager 22, which computes the amount of excess capacity from this information in accordance with the aspect of the invention defined by claims 8 and 16 (see page 13, lines 10-26, of the specification).

E. Dependent claims 9 and 17

Dependent claims 9 and 17 depend from claims 8 and 16, respectively. Each of claims 9 and 17 recites that "the excess capacity information received from the given mobile carrier entity includes maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity."

As explained on page 4, lines 16-18, of the specification, the received excess capacity information may include maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information, in accordance with the aspect of the invention defined by claims 9 and 17.

F. Dependent claim 21

Claim 21 depends from independent claim 1 and recites that the receiving of the capacity attributes includes prompting the one or more users to enter the respective capacity attributes.

FIG. 3A shows an embodiment of a method in accordance with which the global freight job manager 22 queries the user for a set of mobile carrier capacity attributes, including an amount of capacity available on a given mobile carrier entity, in accordance with the aspect of the invention defined by claim 21 (see FIG. 3A, blocks 92-94; page 10, lines 9-20, of the specification).

G. Dependent claim 23

Claim 23 depends from claim 22, which depends from independent claim 1. In accordance with the aspect of the invention defined in claim 23, the method of claim 1 includes receiving haulage rates from the identified freight haulage job candidates, and selecting one of the identified freight haulage job candidates to perform a particular one of the freight haulage jobs based at least in part on the received haulage rates.

In the embodiment shown in FIG. 3A, the global freight haulage job manager 22 queries the users to enter haulage rates for mobile carriers in accordance with the aspect of the invention defined in claim 23 (see FIG. 3A, block 92, and page 10, lines 18-19 of the specification). FIG.

3B shows an embodiment of a method in accordance with which the global freight haulage manager 22 selects a freight haulage job candidate based at least in part on the received haulage rates in accordance with the aspect of the invention defined in claim 23 (see FIG. 3B, block 116, and page 12, lines 3-16, of the specification).

In accordance with the scheduling model enabled by the method of claim 23, the global freight haulage job manager 22 is able to create a marketplace for allocating freight haulage jobs by soliciting bids from the mobile carriers.

H. Independent claim 18

The aspect of the invention defined in independent claim 18 is a portable device that includes a portable housing in which is a memory, a wireless transceiver, a positioner, a scanner, and a controller. The portable housing incorporates a display screen and one or more control buttons. The positioner is operable to compute position information. The scanner is operable to direct a light beam at a symbol and to recover information embedded in the symbol based upon detected reflections from the symbol. The controller is coupled to the memory, the wireless transceiver, the positioner, and the scanner. The controller is operable to obtain from the scanner capacity attributes, including position information, route information and excess capacity information, for a mobile carrier entity. The controller also is operable to control wireless transmission of the capacity attributes through the wireless transceiver in accordance with a mobile wireless communication protocol.

FIGS. 4A and 4B show an embodiment of a portable device 130 in accordance with the aspect of the invention defined in independent claim 18 (see page 13, line 10 - page 14, line 24, of the specification). The portable device 130 includes a portable housing that incorporates a display screen 132 and one or more control buttons 133-140 (see FIG. 4B; and page 13, lines 27-31, of the specification). Within the housing, the portable device 130 includes a memory 164, a wireless transceiver 154, a (GPS) positioner that is operable to compute position information, a scanner 155, and a controller 162 (see FIG. 4B; and page 14, lines 8-24, of the specification). The scanner 155 is operable to direct a light beam at a symbol and to recover information embedded in the symbol based upon detected reflections from the symbol (see, e.g., page 4, lines

22-24, page 13, lines 12-18, and page 14, lines 4-7 and 13-14, of the specification). The controller 162 is coupled to the memory 164, the wireless transceiver 154, the GPS positioner, and the scanner 155 (see FIG. 4B). The controller 162 is operable to obtain from the scanner 155 capacity attributes, including position information, route information and excess capacity information, for a mobile carrier entity (see page 13, lines 10-23, of the specification) and to control wireless transmission of the capacity attributes through the wireless transceiver in accordance with a mobile wireless communication protocol (see page 4, lines 27-29, of the specification).

The portable device 130 enables an operator of a mobile carrier entity to easily obtain excess capacity information and wirelessly communicate that information to the freight haulage job allocation system. For example, the operator may simply scan a bar code or other symbol that is attached to, for example, the container (e.g., trailer) carrier by the mobile carrier entity (see page 13, lines 14-16, of the specification). The bar code symbol may include embedded information relating to, for example, the volume and weight capacity of the container (see page 13, lines 16-18, of the specification). In addition, each time an item of freight is loaded into the container, the mobile carrier entity operator may scan a similar bar code symbol that is attached to the freight item and that specifies, for example the dimensions (or volume) and weight of the freight (see e.g., page 5, lines 4-13, and page 13, lines 18-21, of the specification).

VI. Grounds of Rejection to be Reviewed on Appeal

A. Claims 1-17, and 21-24 stand rejected under 35 U.S.C. § 103(a) over Gaspard (U.S. 2002/0055818) in view of Marshall (Lawson Marshall, "Data: Captured Then Used," Fleet Equipment; ABI/INFORM Global, p.S6, July 1996) and various unsubstantiated assertions regarding "well-known" prior art.

B. Claims 18-20 stand rejected under 35 U.S.C. § 103(a) over Gaspard in view of Norand ("Pen*key 6622 Lightweight power house for Mobile Applications"; "The Automation Solution"; and "Return on Investment Model").

VII. Argument

A. Rejection of claims 1-17, and 21-24 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and various unsubstantiated assertions regarding "well-known" prior art

The Examiner has rejected claims 1-17, and 21-24 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall various unsubstantiated assertions regarding "well-known" prior art.

1. Overview of Gaspard's disclosure

Gaspard discloses a method for scheduling a vehicle to transport freight and passengers. The disclosed scheduling method is implemented by a host 140 (see FIG. 1), which receives transportation requests from passenger terminals P and freight terminals T. According to Gaspard (¶ 39, lines 11-18):

> The transportation request can include a desired pick-up time, a desired arrival time, number of passengers, and any other information needed by the host 140 to process the transportation request (e.g., credit card information, telephone number, etc.). Transportation requests also include requests by freight shippers to pick up and deliver freight from one location to another location.

The host 140 creates scheduling routes based on the received transportation requests. With reference to FIG. 2, Gaspard teaches that (¶ 42, lines 1-12):

> Once a transportation request is received at the host 140, the host 140 creates a route in step 220. That is, preferably the host 140 accesses memory 145 and retrieves a database containing available vehicles and destinations. Where a route already exists (e.g., a vehicle 150 is already scheduled to travel to or near the subject town), the host 140 will determine whether additional passengers, freight and/or destinations can be added. If a route does not already exist or an additional destination cannot be added to an existing route, the host 140 creates a new route (e.g., using conventionally available mapping software) based on past traveled routes, distance between destinations, major highways, etc.

In accordance with Gaspard's teachings, the host 140 does not determine whether freight space is available to fulfill a freight transportation request based on excess capacity information that is received from a user. Instead, as acknowledged by the Examiner (see final Office action, page 3, lines 7-12, and page 11, lines 4-8) the host 140 determines whether freight space is available to fulfill a freight transportation request based on predetermined knowledge of the attributes of the available set of transport vehicles and on an inference of the currently available freight haulage space from the cubic space reserved in the scheduled ones of the transportation requests (see last sentence of ¶ 60: "It is to be understood that the freight transportation requests include reservations for cubic space (whether or not the space is actually used) in the creation of a route"). Nowhere does Gaspard teach that the host 140 receives from one or more users excess capacity information specifying available freight-hauling capacity for freight-hauling mobile carrier entities, as recited in independent claim 1. Indeed, in the context of Gaspard's invention, the host 140 knows *a priori* all the vehicles that are available for transporting passengers and freight. In addition, the host 140 receives all of the information regarding the passengers and freight to be transported, including attributes of all currently scheduled passengers and freight, all new transportation requests to be scheduled, and all canceled transportation requests. Therefore, the host 140 already has access to all the information needed to infer the freight haulage space that currently is available on the transportation vehicles. Consequently, in the context of the scheduling model implemented by Gaspard's host 140, there is no reason whatsoever for Gaspard's system to receive excess capacity information from the transportation vehicles.

2. Independent claim 1

Claim 1 recites:

> 1. A computer-implemented method of allocating freight haulage jobs, comprising:
>
> receiving from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling

> capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities;
>
> computing a projection of available carrier capacity based upon the received mobile carrier capacity attributes; and
>
> identifying one or more freight haulage job candidates from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

The Examiner's rejection of claim 1 under 35 U.S.C. § 103(a) over Gaspard should be withdrawn because Gaspard does not teach or suggest "receiving from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities."

The method defined in claim 1 is an open, mobile-carrier-driven scheduling method in accordance with which mobile carriers are able to send to a global freight haulage job manager excess capacity information as it becomes available. This allows the mobile carriers to expeditiously fill excess capacity that they have at any particular time and allows the global freight haulage job manager to flexibly allocate freight haulage jobs to mobile carriers in a dynamic group whose members may change depending on the availability (including current excess capacity and current route schedules) of the mobile carriers.

3. The Examiner's position and Applicant's rebuttal

The Examiner has acknowledged that (final Office action, page 11, lines 4-8):

> Gaspard does not teach:
>
> receiving from one or more users respective capacity attributes, including excess capacity information specifying available freight-hauling capacity.
>
> Gaspard's teaching infers the excess capacity information based on passenger inputs (i.e., requests for pickup) and known vehicle capacity.

In an effort to make-up for this failure of Gaspard's teaching the Examiner has stated that (final Office action, page 11, lines 12-17):

> The examiner takes Official Notice that receiving from one or more users capacity information specifying available freight-hauling capacity is old and well known in the art. An example of this is logistics dispatchers who receive excess capacity information via radio from delivery drivers in order to more efficiently schedule routes.
>
> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gaspard, regarding receiving capacity and position attributes from and for mobile carrier entities, to include the step of receiving excess capacity information, because it would enable more efficient scheduling for the mobile carrier entities.

Putting to one side the issue of whether the subject of the Examiner's Official Notice accurately reflects what was generally known at the time the invention was made, the mere knowledge that logistics dispatchers receive excess capacity information via radio from delivery drivers would not have led one skilled in the art at the time the invention was made to modify Gaspard's scheduling method in a way that would arrive at the method recited in claim 1. Specifically, such knowledge would not have led such a person to modify Gaspard's scheduling method to include the process of "receiving from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities," as recited in claim 1.

Gaspard's scheduling model is a closed, host-driven scheduling model in which the host 140 controls the scheduling of routes of a predetermined set of transportation vehicles, receives new transportation requests for new passengers or freight, and adds the new passengers or freight to existing routes or creates new routes depending on the availability of existing routes to accommodate the new transportation requests. The host 140 knows *a priori* all the vehicles that are available for transporting passengers and freight, and receives all of the information regarding the passengers and freight to be transported, including attributes of all currently scheduled passengers and freight, all new transportation requests to be scheduled, and all

canceled transportation requests. Thus, in the context of the scheduling model implemented by Gaspard's host 140, the host 140 already has all the information that is needed to infer the freight haulage space that currently is available on the transportation vehicles and, therefore, there is no reason whatsoever for the host 140 to receive excess capacity information from the transportation vehicles.

The mere knowledge that logistics dispatchers receive excess capacity information via radio from delivery drivers would not have motivated one skilled in the art at the time the invention was made to modify Gaspard's host 140 to receive excess capacity information from the transportable vehicles because such knowledge would not have led such a person to believe that changing the host 140 in this way "would enable more efficient scheduling for the mobile carrier entities," as stated by the Examiner. Indeed, the knowledge that capacity information is transmitted from delivery drivers to dispatchers in the context of an unspecified route scheduling model, would not change the fact that in the context of Gaspard's scheduling model, the host 140 already has all the information that is needed to infer the freight haulage space that is available on the transportation vehicles. Accordingly, the knowledge that is the subject of the Examiner's Office Notice does not support the Examiner's conclusion that the method recited in independent claim is obvious over the combination of that knowledge and Gaspard's disclosure.

The Examiner's rejection is premised on a contradiction. Namely, on one hand, the Examiner has acknowledged that Gaspard's host 140 has all of the information needed to determine excess capacity without receiving that information from the transportation vehicles yet, on the other hand, the Examiner insists that one skilled in the art would have found it obvious to modify Gaspard's system so that the host 140 received that information from the transportation vehicles. The Examiner has based is obviousness conclusion on the assumption that one skilled in the art would have recognized that such a modification of Gaspard's system "would enable more efficient scheduling for the mobile carrier entities" (final Office action, page 11, lines 16-17). The Examiner, however, has not explained why such a person would believe that adding the additional step of receiving redundant excess capacity information from the transport vehicles "would enable more efficient scheduling."

In the Response to Arguments section of the final Office action, the Examiner has pointed to ¶ 60 of Gaspard's disclosure as supporting the following statement (final Office action page 3, line 20 - page 4, line 4):

> Gaspard discloses that there may be reserved but unutilized space and that space is considered utilized by the system. Gaspard teaches that a delivery vehicle will be in a situation where there is a need to change the route to accommodate a last minute request. When this occurs, the actual freight a vehicle is carrying can be less than what the system actually shows it to be carrying, and thus the vehicle has more capacity than the system shows it to have.

Paragraph 60 describes the method of FIG. 5, which is executed by the host 140 to evaluate each new transportation request as to available passenger seats, available freight requirements, and profitability (see ¶ 60, lines 1-4). The results of this evaluation are used determine whether: a new transportation request can be added to an existing route; existing routes should be modified, partially combined, or split to accommodate a new transportation request; or whether a new route should be created to accommodate a new transportation (see ¶ 59, lines 14-18).

The Examiner has relied upon the last sentence of ¶ 60 to support his conclusion that "the vehicle has more capacity than the system shows it to have." This sentence, however, does not support the Examiner's conclusion. Specifically, in this sentence, Gaspard merely teaches that in the process of evaluating a new transportation request as to profitability, the host 140 uses the cubic space that is reserved in the freight transportation request, regardless of whether the space is actually used. This teaching does not contradict the assumption underlying Gaspard's scheduling model that the host 140 receives all of the information regarding the passengers and freight to be transported, including attributes of all currently scheduled passengers and freight, all new transportation requests to be scheduled, and all canceled transportation requests. In addition, at this stage of the scheduling process, the host 140 has not reserved any space for the freight or passengers specified in the new transportation request. Therefore, contrary to the Examiner's assumption, none of the transport vehicles would have more capacity than the host 140 shows it to have.

In response to Appellant's request for the Examiner to cite art in support of his assertions, the Examiner pointed to the disclosure of Marshall (Lawson Marshall, "Data: Captured Then Used," Fleet Equipment; ABI/INFORM Global, p.S6, July 1996) for purportedly showing "the limitation of 'receiving from one or more users respective capacity attributes, including excess capacity information specifying available freight-hauling capacity'" (see final Office action, page 9, lines 5-9). With respect to capacity, however, Marshall merely teaches that "The Network Management module monitors demand (load orders) and capacity (available equipment) to display balance across three levels of user-defined geographic areas" (page S-8, col. 1, lines 12-15). This disclosure does not teach that the Network Management module "receives" excess capacity information from one or more users. Moreover, this disclosure would not have led one skilled in the art to modify Gaspard's scheduling method to include the process of receiving from one or more users excess capacity information specifying available freight-hauling capacity because, in the context of the scheduling model implemented by Gaspard's host 140, the host 140 already has all the information that is needed to infer the freight haulage space that currently is available on the transportation vehicles without having to receive it from one or more users.

It is noted that the Examiner's reference to taxicabs as an example of the type of knowledge that was generally known at the time the invention was made that would have motivated one skilled in the art to modify Gaspard's system as proposed by the Examiner is not persuasive. Indeed, the knowledge that "taxicab dispatchers could better communicate with individual taxicabs to direct pickups based on whether the taxicab was carrying a passenger or not" (final Office action, page 9, lines 2-4) in the context of an unspecified route scheduling model, would not change the fact that in the context of Gaspard's scheduling model, the host 140 already has all the information that is needed to infer the freight haulage space that is available on the transportation vehicles. Accordingly, the knowledge of such a taxicab dispatching model does not support the Examiner's conclusion that the method recited in independent claim is obvious over the combination of that knowledge and Gaspard's disclosure.

For at least the reasons explained above, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

4. Dependent claims 2-9 and 21-24

Each of claims 2-9 and 21-24 incorporates the features of independent claim 1 and therefore is patentable over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice for at least the same reasons explained above. Claims 8, 9, 21, and 23 also are patentable over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice for the following additional reasons.

a. Claim 8

Claim 8 recites "further comprising computing an amount of capacity available on a given mobile carrier entity based upon excess capacity information received from the given mobile carrier entity."

In support of his rejection of claim 8, the Examiner has indicated that in paragraph 60 lines 1-2 Gaspard teaches "transportation freight requirements are evaluated (i.e., computed) against available capacity (volume and weight) to determine if the load can be carried by the mobile carrier in question." In paragraph 60, Gaspard merely teaches that each new transportation request is evaluated as to available passenger seats, available freight requirements, and profitability. This teaching does not constitute "computing an amount of capacity available on a given mobile carrier entity based upon excess capacity information received from the given mobile carrier entity," as recited in claim 8. Indeed, the disclosure in paragraph 60 does not specify how the "available freight requirements" are determined. In addition, as explained above, neither Gaspard nor the unsubstantiated prior art teaches or suggests anything that would have led one skilled in the art to modify the host 140 to receive excess capacity information specifying available freight-hauling capacity from a given mobile carrier entity.

For this additional reason, the Examiner's rejection of claim 8 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

b. Claim 9

Claim 9 recites that "the excess capacity information received from the given mobile carrier entity includes maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity."

In support of his rejection of claim 9, the Examiner has indicated that in paragraph 60 lines 2-4 Gaspard teaches "freight requirements of volume and weight for a freight transport request (i.e., excess capacity information) are received from the database to determine if a freight transport request can be fulfilled for a given mobile carrier entity." The freight requirements for a *freight transportation request*, however, does not constitute excess capacity information for a given mobile carrier entity. Indeed, the freight requirements specified in a freight transportation request merely describe the volume and weight of a particular shipment. This information does not reveal anything about the capacity of a given mobile carrier nor anything about the items being carried by the given mobile carrier because the request has not been scheduled yet (see, e.g., FIG. 5).

Furthermore, in paragraph 60, Gaspard merely teaches that each new transportation request is evaluated as to available passenger seats, available freight requirements, and profitability. This disclosure does not teach that the host 140 receives from a given mobile carrier entity the maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity. Indeed, the disclosure in paragraph 60 does not specify how the "available freight requirements" are determined. In addition, as explained above, neither Gaspard nor the unsubstantiated prior art teaches or suggests anything that would have led one skilled in the art to modify the host 140 to receive excess capacity information specifying available freight-hauling capacity from a given mobile carrier entity.

For this additional reason, the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

c. Claim 21

Claim 21 recites that "the receiving comprises prompting the one or more users to enter the respective capacity attributes."

The Examiner has acknowledged that Gaspard does not teach or suggest this feature (final Office action, page 16, lines 3-5). Indeed, in accordance with Gaspard's teachings, the host 140 does not receive excess capacity information from a user. To make-up for this failure of Gaspard's teachings, the Examiner has stated that (final Office action, page 16, lines 6-13):

> Official Notice is taken that prompting a user to enter information, including excess capacity information, is old and well known in the art of computers. This provides an easy to use interface to enter data into a computer system.
>
> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gaspard, regarding receiving cube and weight information for mobile carrier entities, to include the step of prompting the user to enter the capacity information, because it would provide an easy way to enter data into a computer system.

With this rejection, however, the Examiner has not established a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a) in accordance with MPEP § 706.02(j) because the Examiner has not provided the requisite factual basis and not established the requisite motivation to support his deemed conclusion that the features recited in claim 21 would have been obvious to one of ordinary skill in the art at the time of the invention. The Examiner's statement that it would have been obvious to modify the teachings of Gaspard "because it would provide an easy way to enter data into a computer system" does not meet the Examiner's obligation to point to some teaching or suggestion in Gaspard or in the knowledge generally available that would have led one of ordinary skill in the art to the invention recited in claim 21. In particular, although the concept of prompting a user to enter information is old and well known in the art of computers, this fact would not have motivated one skilled in the art at the time of the invention to modify Gaspard's system to prompt a user to enter information that is not used by Gaspard's system. Without a proper explanation for combining Gaspard and the unsubstantiated facts asserted by the Examiner to arrive at the invention recited in claim 21, the Examiner has failed to establish a

proper *prima facie* case of obviousness and the rejection of claim 21 under 35 U.S.C. § 103(a) over Gaspard a in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

The Examiner has responded to these points as follows (final Office action page 6, line 19 - page 7, line 15):

> The applicant argues that Gaspard and the Official Notice do not meet the limitations of Claim 21 in "the receiving comprises prompting the user to enter the respective capacity attributes".
>
> The examiner respectfully disagrees. Gaspard teaches the need to obtain and use this information. Capacity attributes are necessary to Gaspard because of the need to reschedule logistics service in real time. In particular, Gaspard teaches that there is a particular time when the capacity information is needed. This occurs when unanticipated requests come in from the field to reschedule a logistics route. Official Notice was taken that it is old and well known in the art to receive capacity information of mobile entities from one or more users in Claim 1. In claim 21, Official notice was taken that it is old and well known in the art to prompt users to enter information, including excess capacity information. Since Gaspard teaches the need to use the capacity information, and as well, the need to use it at a particular time, one of ordinary skill in the art would find sufficient motivation to combine the teachings to meet the need of obtaining capacity information from one or more users for mobile entities, where that capacity information is needed in real time, where the user is prompted to enter the capacity attributes, to be used in making a determination to reschedule a logistics service.

For the reasons explained in connection with claim 1, however, Gaspard's disclosure does not support the Examiner's assumptions. In particular, Gaspard does not teach the need for the host 140 to receive respective capacity attributes, including excess capacity information, from users. As explained above, the portion of Gaspard's disclosure (i.e., the last sentence of ¶ 60) that the Examiner has relied upon does not support his conclusion that "the vehicle has more capacity than the system shows it to have." Specifically, in this sentence, Gaspard merely teaches that in the process of evaluating a new transportation request as to profitability, the host 140 uses the cubic space that is reserved in the freight transportation request, regardless of whether the space is actually used. This teaching does not contradict the assumption underlying

Gaspard's scheduling model that the host 140 receives all of the information regarding the passengers and freight to be transported, including attributes of all currently scheduled passengers and freight, all new transportation requests to be scheduled, and all canceled transportation requests. In addition, at this stage of the scheduling process, the host 140 has not reserved any space for the freight or passengers specified in the new transportation request. Therefore, contrary to the Examiner's assumption, none of the transport vehicles would have more capacity than the host 140 shows it to have.

Thus, in the context of the scheduling model implemented by Gaspard's host 140, there is no reason whatsoever for the host 140 to receive excess capacity information from the transportation vehicles because the host 140 already has all the information that is needed to infer the freight haulage space that currently is available on the transportation vehicles. Consequently, there is no need for the host 140 to prompt "the one or more users to enter the respective capacity attributes," as recited in claim 21.

For these additional reasons, the Examiner's rejection of claim 21 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

d. Claim 23

Claim 23 recites "receiving haulage rates from the identified freight haulage job candidates, wherein the selecting is based at least in part on the received haulage rates." In accordance with the scheduling model enabled by the method of claim 23, the global freight haulage job manager 22 is able to create a marketplace for allocating freight haulage jobs by soliciting bids from the mobile carriers.

The Examiner has acknowledged that Gaspard does not teach or suggest this feature (final Office action, page 17, lines 1-3). Indeed, in the context of Gaspard's invention, all of the transportation vehicles are controlled by the same entity, as can be inferred from the fact that Gaspard's host 140 has no provision for receiving excess capacity information from the transportation vehicles. Therefore, there would not be any reason whatsoever to receive haulage rates from the transportation vehicles. To make-up for this failure of Gaspard's teachings, the Examiner has stated that:

> Official Notice is taken that selecting a carrier based on a received quote is old and well-known in the 3pl art. This ensures the most competitive rate is achieved to save money.
>
> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gaspard, regarding receiving cube and weight information for mobile carrier entities, to include the step of receiving rate information and selecting a carrier based on the rate information, because it would save money in transporting a particular freight haulage job.

With this rejection, however, the Examiner has not established a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a) in accordance with MPEP § 706.02(j) because the Examiner has not provided the requisite factual basis and not established the requisite motivation to support his deemed conclusion that the features recited in claim 23 would have been obvious to one of ordinary skill in the art at the time of the invention. The Examiner's statement that it would have been obvious to modify the teachings of Gaspard "because it would save money in transporting a particular freight haulage job" does not meet the Examiner's obligation to point to some teaching or suggestion in Gaspard or in the knowledge generally available that would have led one of ordinary skill in the art to the invention recited in claim 23. In particular, although the concept of competitive bidding is old and well known, this fact would not have motivated one skilled in the art at the time of the invention to modify Gaspard's system to receive haulage rates from the transportation vehicles when all of the transportation vehicles are controlled by the same entity, as is the case in the context of Gaspard's invention. Without a proper explanation for combining Gaspard and the unsubstantiated facts asserted by the Examiner to arrive at the invention recited in claim 23, the Examiner has failed to establish a proper *prima facie* case of obviousness and the rejection of claim 23 under 35 U.S.C. § 103(a) over Gaspard and the unsubstantiated prior art should be withdrawn.

The Examiner has responded to these points as follows (final Office action page 6, line 19 - page 7, line 15):

> The applicant argues that Gaspard and the Official Notice do not meet the limitations of Claim 23 in "receiving haulage rates from the identified freight haulage job candidates, wherein the selecting is based at least in part on the received haulage rates".

> The examiner respectfully disagrees. Gaspard teaches that specific vehicles are candidates for last minute route changes to pick up freight and/or passengers. Gaspard further teaches the need to determine profitability (i.e. revenue - cost) for a particular change in route. Since profitability is dependent on the cost (i.e. rate) that will be incurred by a route change, Gaspard teaches the need to use this information. If the rate cost is too high in comparison to the revenue to be gained, then the schedule change request is not pursued, that is, the route change is not made. The Official Notice is that it is old and well known in the art of 3PL's (i.e. carriers) to select a carrier based on their rate cost, since some carriers are cheaper than others. Since Gaspard teaches profitability is a criteria in making a route change, one of ordinary skill in the art of logistics would have found it obvious to modify Gaspard's invention to select a 3PL carrier based on the carrier's freight cost, because it would save money over more expensive carriers and enable Gaspard's profitability goals to be met.

The Examiner's response, however, does not address Appellant's point that although the concept of competitive bidding is old and well known, this fact would not have motivated one skilled in the art at the time of the invention to modify Gaspard's system to receive haulage rates from the transportation vehicles when all of the transportation vehicles are controlled by the same entity, as is the case in the context of Gaspard's invention. As explained above in connection with claim 1, Gaspard's scheduling model is a closed, host-driven scheduling model in which the host 140 controls the scheduling of routes of a predetermined set of transportation vehicles, receives new transportation requests for new passengers or freight, and adds the new passengers or freight to existing routes or creates new routes depending on the availability of existing routes to accommodate the new transportation requests. There is no need for the host 140 to receive haulage rates from the transportation vehicles in the context of Gaspard's scheduling model.

For these additional reasons, the Examiner's rejection of claim 23 under 35 U.S.C. § 103(a) over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice should be withdrawn.

5. Claims 10-17

Independent claim 10 recites:

10. A computer program for allocating freight haulage jobs, the computer program residing on a computer-readable medium and comprising computer-readable instructions for causing a computer to:

receive from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities;

compute a projection of available carrier capacity based upon the received mobile carrier capacity attributes; and

identify one or more freight haulage job candidates from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

Independent claim 10 has been amended to include features essentially tracking the pertinent features of independent claim 1 discussed above. Claim 10 therefore is patentable over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice for at least the same reasons explained above in connection with claim 1.

Each of claims 11-17 incorporates the features of independent claim 10 and therefore is patentable over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice for at least the same reasons explained above.

Claims 16 and 17 also are patentable over Gaspard in view of Marshall and the unsubstantiated knowledge that is the subject of the Examiner's Official Notice for at least the same additional reasons explained above in connection with claims 8 and 9, respectively.

B. Rejection of claims 18-20 under 35 U.S.C. § 103(a) over Gaspard in view Norand

The Examiner has rejected claims 18-20 under 35 U.S.C. § 103(a) over Gaspard in view of Norand (final Office action, page 19, lines 11-13).

1. Independent claim 18

Independent claim 18 recites:

> 18. A portable device, comprising:
>
> a portable housing incorporating a display screen and one or more control buttons;
>
> a memory in the housing;
>
> a wireless transceiver in the housing;
>
> a positioner in the housing and operable to compute position information;
>
> a scanner in the housing and operable to direct a light beam at a symbol and to recover information embedded in the symbol based upon detected reflections from the symbol; and
>
> a controller in the housing and coupled to the memory, the wireless transceiver, the positioner, and the scanner and operable to obtain from the scanner capacity attributes, including position information, route information and excess capacity information, for a mobile carrier entity and to control wireless transmission of the capacity attributes through the wireless transceiver in accordance with a mobile wireless communication protocol.

In his rejection of independent claim 18, the Examiner has taken the position that various elements of the networked communications system 100 that is shown in FIG. 1 of Gaspard constitute the portable device recited in independent claim 18. In particular, the Examiner has indicated that: the memory and wireless transceiver, which may be components of any one of the passenger and freight terminals Pi, Fi, correspond to the memory and wireless transceiver recited in claim 18; the GSP receiver 170, which may be located in the vehicle 150, corresponds to the positioner recited in claim 18; and that the host computer system 140 corresponds to the controller recited in claim 18.

The Examiner's rejection of claim 18 under 35 U.S.C. § 103(a) over Gaspard in view of Norand should be withdrawn for the following reasons.

a. Neither Gaspard nor Norand teaches or suggests anything about a controller that is operable to receive excess capacity information from a scanner

The rejection of claim 18 is premised on the incorrect assumption that the host 140 receives capacity information from the transportation vehicles. The Examiner already has acknowledged that "Gaspard does not teach: receiving from one or more users respective capacity attributes, including excess capacity information specifying available freight-hauling capacity" (see final Office action, page 11, lines 4-8). Instead, the host 140 determines whether freight space is available to fulfill a freight transportation request based on predetermined knowledge of the attributes of the available set of transport vehicles and on an inference of the currently available freight haulage space from the cubic space reserved in the scheduled ones of the transportation requests. Thus, in the context of the scheduling model implemented by Gaspard's host 140, the host 140 already has all the information that is needed to infer the freight haulage space that currently is available on the transportation vehicles and, therefore, there is no reason whatsoever for the host 140 to receive excess capacity information from the transportation vehicles.

Norand does not teach or suggest anything that would have led one skilled in the art to modify Gaspard's host 140 to receive excess capacity information for a mobile carrier. Therefore, there is no basis for the Examiner's premise that the host 140 receives capacity information from the transportation vehicles. Consequently, there is no basis for the Examiner's conclusion that "It would have been obvious to one of ordinary skill in the art to modify the teachings of Gaspard regarding providing a system for scheduling capacity information on mobile carriers with excess capacity, to include the step of entering information into the system using a bar code scanner..." (final Office action, page 21, lines 15-18).

For at least this reason, the Examiner's rejection of claim 18 should be withdrawn.

In addition, the Examiner has acknowledged that Gaspard does not teach or suggest anything about a scanner, much less anything about a scanner from which the controller received excess capacity information for a mobile carrier entity, as recited in claim 18. In an effort to

make-up for this failure of Gaspard's disclosure, the Examiner has stated that (final Office action, page 21, lines 11-14):

> The examiner takes official notice that bar code scanners which recover information from symbols based on detected reflections from the symbol are old and well known in the art of logistics as a way to quickly and accurately obtain information from a shipping package.
>
> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Gaspard regarding providing a system for scheduling capacity information on mobile carriers with excess capacity, to include the step of entering information into the system using a bar code scanner, because it would simplify and make more accurate the entering of logistic information into the system.

The mere knowledge that "bar code scanners which recover information from symbols based on detected reflections from the symbol are old and well known in the art of logistics as a way to quickly and accurately obtain information from a shipping package," however, would not have led one skilled in the art to modify Gaspard's scheduling system in the manner proposed by the Examiner. First, as explained above, in the context of Gaspard's scheduling model, there is no reason whatsoever for the host 140 to receive excess capacity information from the transportation vehicles. Second, such knowledge by itself would not have led one skilled in the art to use a scanner to recover excess capacity information. Indeed, there is no basis for the Examiner's implicit assumption that the bar code readers that are well known in the art of logistics recover excess capacity information from shipping packages.

For at least this additional reason, the Examiner's rejection of claim 18 should be withdrawn.

b. Neither Gaspard nor Norand teaches or suggests anything that would have led one skilled in the art to incorporate the host 140 in a portable housing or that would have led such a person to recover excess capacity information by scanning a shipping package

In the rejection of claim 18, the Examiner has acknowledged that the cited elements of Gaspard's communication system 100 are not all in the same portable housing, as recited in claim 18. In particular, the Examiner has acknowledged that Gaspard does not teach or suggest a portable housing that contains each of the following elements of the networked communications system 100 shown in FIG. 1 of Gaspard: the memory and wireless transceiver, which may be components of any one of the passenger and freight terminals Pi, Fi, correspond to the memory and wireless transceiver recited in claim 18; the GSP receiver 170, which may be located in the vehicle 150, corresponds to the positioner recited in claim 18; and that the host computer system 140 corresponds to the controller recited in claim 18.

The Examiner has relied on Norand to make-up for this failure of Gaspard disclosure. In this regard, the Examiner has made various statements regarding Norand's disclosure (see final Office action, page 23, line 3 - page 25, line). None of these statements, however, shows how the combination of Gaspard and Norand supports the Examiner's proposal to incorporate Gaspard's host 140 in a portable housing along with a memory, a position, a wireless transceiver, and a scanner. Indeed, Gaspard's system is a host-driven scheduling system that is based on the centralized collection of information by the host 140. The distribution of the scheduling functionality to multiple portable devices would not serve any apparent useful prupose. In addition, none of these statements shows how the combination of Gaspard and Norand supports the Examiner's implicit assumption that the bar code readers that are well known in the art of logistics recover excess capacity information from shipping packages. The Examiner's statements regarding Norand's disclosure are discussed in detail in the following paragraphs.

On page 23, lines 3-18, of the final Office action, the Examiner has stated that (emphasis added):

> Norand teaches that having drivers use automation via a handheld computer for delivery driver saves a significant amount of time

> because manual paperwork is automated (see Reference P page 2 para 5). Norand further teaches that giving the drivers the latest in technology improves their self image and morale (Reference P page 3 para 7, Reference T page 2 para 5). Norand also teaches that the driver can track any data that the transportation company wants to track (Reference T page 1 para 8). Norand teaches that the time stamps provided by the system improve productivity on the part of the drivers because of the awareness that every transaction is recorded (Reference P page 2 para 1 & 2). Norand's system prompts the drivers to record information when pickups and delivery is made, and that this results in the drivers scanning detailed package information into their computer regarding the specific package contents (Reference T page 1 para 8). The examiner interprets this to include the weight of the package. Norand teaches that prompts can be sent to the handheld computer in the field about the spotting (i.e. identification) of empty and full trailers (i.e. capacity information) so that logistics planning can occur based on this information (Reference P page 4 para 6).

This statement does not provide any basis whatsoever for concluding that one skilled in the art at the time the invention was made would have been motivated to incorporate Gaspard's host 140 in a portable housing along with a memory, a position, a wireless transceiver, and a scanner, as proposed by the Examiner. In addition, ¶ 8 of the Norand Reference T ("The automation solution") does not support the Examiner's interpretation that the Norand system scans the weight of a package being shipped. Specifically, ¶ 8 of the Norand reference T reads as follows:

> During each stop along the route the driver scans bar codes on freight and enters data about his activities into the hand-held computer - whether it is a pickup or delivery. This data includes anything the transportation company wants to track: such as the number of pieces to be delivered or picked up, the contents of each piece, the delivery address, or even the person's name who signed for the shipment to produce Proof of Delivery.

None of the types of data described in ¶ 8 of the Norand reference T constitutes the weight of a package. Moreover, one skilled in the art at the time the invention was made would not have been led to even consider the weight of the package as being an element of the scanned data because the weight of the package is not relevant to the production of Proof of Delivery.

Therefore, the Examiner's statement does not show how the combination of Gaspard and Norand supports the Examiner's implicit assumption that the bar code readers that are well known in the art of logistics recover excess capacity information from shipping packages.

On page 24, lines 2-13, of the final Office action, the Examiner has stated that (emphasis added):

> Achieving the efficiencies and cost savings as provided by the Norand system (for sample cost savings calculations see Reference P page 2 para 6-8) help improve profitability. Companies are in business to make money and be profitable. Productivity improvements, as are taught by Norand, enable a logistics company to achieve this goal and increase profitability. Gaspard teaches that profitability is a measure by which a new logistics route is to be evaluated. Norand's product improves productivity and thus profitability by making drivers more efficient and in automating their daily tasks. Norand's product automates the detailed tracking of what is on a delivery truck, so that the errors in tracking are significantly reduced. Gaspard teaches that knowing what is on the truck is useful in planning real time route changes to pickup and deliver additional freight because doing so requires understanding the capacity of the particular carrier vehicle.

This statement does not provide any basis whatsoever for concluding that one skilled in the art at the time the invention was made would have been motivated to incorporate Gaspard's host 140 in a portable housing along with a memory, a position, a wireless transceiver, and a scanner, as proposed by the Examiner. In addition, this statement does not show how the combination of Gaspard and Norand supports the Examiner's implicit assumption that the bar code readers that are well known in the art of logistics recover excess capacity information from shipping packages. As explained above, in the context of Gaspard's scheduling model, there is no reason whatsoever for the host 140 to receive excess capacity information from the transportation vehicles. Therefore, there is no basis for the Examiner's assumption that one skilled in the art would have been motivated to use the Norand system for this purpose, especially in view of the fact that Norand provide no teaching or suggestion for one skilled in the art to use the Norand system to recover excess capacity information from a package.

On page 24, line 14 - page 25, line 1, of the final Office action, the Examiner has stated that (emphasis added):

> One of ordinary skill in the art of transportation and logistics at the time of the invention would find it obvious to modify the teachings of Gaspard regarding providing a logistics service that relies on a detailed tracking of what is in the vehicle to include providing the vehicle driver with a handheld device to automate package tracking and delivery tasks because it would improve driver productivity and morale and improve the accuracy of package tracking to determine available capacity for real time route changes and thus resulting in increased profitability for the logistics company operating the carrier vehicle.

This statement does not provide any basis whatsoever for concluding that one skilled in the art at the time the invention was made would have been motivated to incorporate Gaspard's host 140 in a portable housing along with a memory, a position, a wireless transceiver, and a scanner, as proposed by the Examiner. In addition, this statement does not show how the combination of Gaspard and Norand supports the Examiner's implicit assumption that the bar code readers that are well known in the art of logistics recover excess capacity information from shipping packages. Indeed, the Examiner's reasoning that one skilled in the art would have been motivated to modify Gaspard's system by "providing the vehicle driver with a handheld device to automate package tracking and delivery tasks" to "improve the accuracy of package tracking to determine available capacity" is not persuasive. First, neither Gaspard nor Norand teaches or suggests anything that would have led one skilled in the art to use Norand's system to scan excess capacity information from a package. Second, the Examiner's reasoning amounts to no more than the impermissible "obvious to try" rationale, which is not the proper standard under 35 U.S.C. § 103 (see MPEP § 2145.X.B).

For at least this additional reason, the Examiner's rejection of independent claim 18 under 35 U.S.C. § 103(a) over Gaspard in view of Norand should be withdrawn.

2. Claims 19 and 20

Each of claims 19 and 20 incorporates the features of independent claim 18 and therefore is patentable over Gaspard in view of Norand for at least the same reasons explained above.

VIII. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

Date: January 10, 2007

Edouard Garcia
Reg. No. 38,461
Telephone No.: (650) 289-0904

Please direct all correspondence to:

Hewlett-Packard Company
Intellectual Property Administration
Legal Department, M/S 35
P.O. Box 272400
Fort Collins, CO 80528-9599

CLAIMS APPENDIX

The claims that are the subject of Appeal are presented below.

Claim 1 (previously presented): A computer-implemented method of allocating freight haulage jobs, comprising:

receiving from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities;

computing a projection of available carrier capacity based upon the received mobile carrier capacity attributes; and

identifying one or more freight haulage job candidates from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

Claim 2 (original): The method of claim 1, wherein computing the projection of available carrier capacity comprises estimating future positions of one or more of the mobile carrier entities.

Claim 3 (original): The method of claim 2, wherein future positions of one or more of the mobile carrier entities are estimated at one or more times within pickup time windows specified for each of the freight haulage jobs.

Claim 4 (original): The method of claim 2, wherein future positions of one or more of the mobile carrier entities are estimated based at least in part upon current transport condition information.

Claim 5 (original): The method of claim 2, wherein the freight haulage job candidates are identified based at least in part upon the proximity of the estimated mobile carrier entity positions to pickup locations specified for each of the freight haulage jobs.

Claim 6 (original): The method of claim 1, wherein the received excess capacity information includes amount of available capacity and mode of transport.

Claim 7 (original): The method of claim 6, wherein the freight haulage job candidates are identified based at least in part upon a comparison of the received excess capacity information and an amount of needed capacity and mode of transport specified for each of the freight haulage jobs.

Claim 8 (original): The method of claim 1, further comprising computing an amount of capacity available on a given mobile carrier entity based upon excess capacity information received from the given mobile carrier entity.

Claim 9 (previously presented): The method of claim 8, wherein the excess capacity information received from the given mobile carrier entity includes maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity.

Claim 10 (previously presented): A computer program for allocating freight haulage jobs, the computer program residing on a computer-readable medium and comprising computer-readable instructions for causing a computer to:

receive from one or more users respective capacity attributes, including position information, route information and excess capacity information specifying available freight-hauling capacity, for each mobile carrier entity in a set of freight-hauling mobile carrier entities;

compute a projection of available carrier capacity based upon the received mobile carrier capacity attributes; and

identify one or more freight haulage job candidates from the set of mobile carrier entities based upon the computed projection of available carrier capacity and shipping attributes for each of a set of freight haulage jobs.

Claim 11 (original): The computer program of claim 10, wherein computing the projection of available carrier capacity comprises estimating future positions of one or more of the mobile carrier entities.

Claim 12 (original): The computer program of claim 11, wherein future positions of one or more of the mobile carrier entities are estimated at one or more times within pickup time windows specified for each of the freight haulage jobs.

Claim 13 (original): The computer program of claim 12, wherein the freight haulage job candidates are identified based at least in part upon the proximity of the estimated mobile carrier entity positions to pickup locations specified for each of the freight haulage jobs.

Claim 14 (original): The computer program of claim 10, wherein the received excess capacity information includes amount of available capacity and mode of transport.

Claim 15 (original): The computer program of claim 14, wherein the freight haulage job candidates are identified based at least in part upon a comparison of the received excess capacity information and an amount of needed capacity and mode of transport specified for each of the freight haulage jobs.

Claim 16 (original): The computer program of claim 10, further comprising computing an amount of capacity available on a given mobile carrier entity based upon excess capacity information received from the given mobile carrier entity.

Claim 17 (previously presented): The computer program of claim 16, wherein the excess capacity information received from the given mobile carrier entity includes maximum volume information and maximum weight haulable by the given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity.

Claim 18 (previously presented): A portable device, comprising:

a portable housing incorporating a display screen and one or more control buttons;

a memory in the housing;

a wireless transceiver in the housing;

a positioner in the housing and operable to compute position information;

a scanner in the housing and operable to direct a light beam at a symbol and to recover information embedded in the symbol based upon detected reflections from the symbol; and

a controller in the housing and coupled to the memory, the wireless transceiver, the positioner, and the scanner and operable to obtain from the scanner capacity attributes, including position information, route information and excess capacity information, for a mobile carrier entity and to control wireless transmission of the capacity attributes through the wireless transceiver in accordance with a mobile wireless communication protocol.

Claim 19 (original): The portable device of claim 18, wherein the positioner comprises a GPS receiver.

Claim 20 (original): The portable device of claim 18, wherein the controller is operable to compute excess capacity information from scanned information relating to maximum volume information and maximum weight haulable by a given mobile carrier entity and volume information and weight for each item of freight being hauled by the given mobile carrier entity.

Claim 21 (previously presented): The method of claim 1, wherein the receiving comprises prompting the one or more users to enter the respective capacity attributes.

Claim 22 (previously presented): The method of claim 1, further comprising selecting one of the identified freight haulage job candidates to perform a particular one of the freight haulage jobs.

Claim 23 (previously presented): The method of claim 22, further comprising receiving haulage rates from the identified freight haulage job candidates, wherein the selecting is based at least in part on the received haulage rates.

Claim 24 (previously presented): The method of claim 1, wherein the excess capacity information is expressed in terms of volume and weight available on respective ones of the mobile carrier entities.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 CFR §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the pending appeal. Therefore, no copies are required under 37 CFR § 41.37(c)(1)(ix) in the pending appeal.

RELATED PROCEEDINGS APPENDIX

Appellant is not aware of any decisions rendered by a court or the Board that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal. Therefore, no copies are required under 37 CFR § 41.37(c)(1)(x) in the pending appeal.